REMARKS

The Official Action of 30 December 2004 has been carefully considered and reconsideration of the application as amended is respectfully requested.

The specification has been amended to make changes of a clerical and editorial nature and thereby to remove the informality noted at paragraph 6 of the Official Action. In particular, the order of the sections has been changed and "FIELD OF INVENTION" and "SUMMARY OF INVENTION" sections have been added. The text in these sections draws clear support from the specification as filed at, for example, the Abstract and original claim 1.

The indication that claims 17-25 are free of the prior art has been noted with appreciation. The election of the invention of Group I drawn to a peptide is hereby affirmed. The non-elected claims have been indicated as withdrawn, but Applicants respectfully request rejoinder of the method claims which depend from an allowed product claim upon allowance of the product claim (see MPEP Section 821.04).

Claim 16 has been amended to remove the basis for the rejection under 35 USC 112, first paragraph, appearing at paragraph 13 of the Official Action on the grounds that the specification allegedly does not provide enablement for any isolated peptide comprising an amino acid sequence that is "sufficiently similar" to the recited naturally occurring amino acid sequences. The claim as amended requires that the recited amino acid sequences are either

identical to the recited naturally occurring amino acid sequences or that they comprise the recited (at least 8) amino acid sequences of SEQ ID NO: 2 or the recited (at least 8) amino acid sequences of SEQ ID NO: 3. Support for limitation of the claim to the recited naturally occurring amino acid sequences appears in the specification as filed at, for example, page 22, lines 10 *et seq*, Table 2 (TGF-beta); page 27, lines 15 *et seq*, including Table 4 (type III TGF-beta receptor) and page 33, line 29 *et seq*, including Table 6 (endoglin). Support for limitation of the claim to the "at least 8 amino acids" of SEQ ID NO: 2 or the "at least 6 amino acids" of SEQ ID NO: 3 appears in Tables 3 and 5 of the specification as filed, as next discussed.

The peptide fragments comprised between amino acids 731-742 of type III TGFbeta1 receptor, corresponds in the specification to P54 (SEQ ID NO: 3). In the specification (page 32, Table 5) there are examples of peptides (P139-P143) derived from P54 (SEQ ID NO: 3), which have at least 6 contiguous amino acids in common (overlapping) with P54. This is shown by the following alignment:

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P54 (731-742)      Thr Ser Leu Asp Ala Thr Met Ile Trp Thr Met Met (SEQ ID NO: 3)
P139               Thr Ser Leu Asp Ala Thr Met Ile Trp Asp Asp Asp
P140                   Asp Asp Asp Ala Thr Met Ile Trp Thr Met Met
P141                            Asp Ala Thr Met Ile Trp Asp
P142               Thr Ser Leu                 Met Ile Trp Thr Met Met (SEQ ID NO: 5)
P143               Thr Ser Leu Asp Ala Thr                 Thr Met Met
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The amino acids underlined are amino acid substitutions in the P54 natural fragment. Blank positions show amino acid gaps or deletions. But in all the peptides above mentioned, at least 6 consecutive amino acids overlap with the P54 natural sequence.

Similarly, with respect to P12 (SEQ ID NO: 2) in Table 3 on pages 24-25 of the

specification, there are examples of peptides (P30-P38) overlapping in at least 8 amino acids with the amino acid sequence of P12. The following alignment shows the overlapping features of this other family of derived peptides:

P12 (322-335)	Phe	Cys	Leu	Gly	Pro	Cys	Pro	Tyr	Ile	Trp	Ser	Leu	Asp	Thr SEQ ID NO:2
P30	Phe	Ser	Leu	Gly	Pro	Cys	Pro	Tyr	Ile	Trp	Ser	Leu	Asp	Thr
P31	Phe	Cys	Leu	Gly	Pro	Ser	Pro	Tyr	Ile	Trp	Ser	Leu	Asp	Thr
P32	Phe	Ser	Leu	Gly	Pro	Ser	Pro	Tyr	Ile	Trp	Ser	Leu	Asp	Thr
P33	Phe	Cys	Leu	Gly	Pro	Cys	Pro	Tyr	Ile	Trp	Ser	Asp	Asp	Asp
P34	Asp	Asp	Asp	Gly	Pro	Cys	Pro	Tyr	Ile	Trp	Ser	Leu	Asp	Thr
P35	Asp	Asp	Asp	Gly	Pro	Cys	Pro	Tyr	Ile	Trp	Ser	Asp	Asp	Asp
P36				Gly	Pro	Cys	Pro	Tyr	Ile	Trp	Ser	Asp	Asp	Asp
P37	Asp	Asp	Asp	Gly	Pro	Cys	Pro	Tyr	Ile	Trp	Ser			
P38			Asp	Gly	Pro	Cys	Pro	Tyr	Ile	Trp	Ser	Asp		

The amino acids underlined are amino acid substitutions in the P12 natural fragment. Blank positions show amino acid gaps or deletions. But in all the peptides above mentioned, at least 8 amino acids overlap with the P12 natural sequence.

It is respectfully submitted that the portions of the specification discussed above convey with reasonable clarity to those skilled in the art that, as of the filing date sought, applicant was in possession of the invention as now claimed. As discussed in MPEP Section 2163.02, the subject matter of the claim need not be described literally (i.e., using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement. An applicant may show possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. In the present case, this is done by way of the examples.

Similarly, with respect to the recitation that the claimed peptide fragment consists of 9 to 23 amino acids, the examples in the specification convey with reasonable clarity to those skilled in the art that applicant was in possession of this limitation as of the application filing date. Specifically, both limits (lower and upper) are implicitly disclosed in the application as filed. The shortest peptide (SEQ ID NO: 5) has 9 amino acids, precisely, while the largest peptide (SEQ ID NO: 10) has 23, and both peptides are disclosed in the specification as filed (see Table 7 one page

10 of the specification).

In view of the above, and the fact that the specification as filed clearly showed that Applicants contemplated that the claimed isolated peptide could fall within a range of from 9 to 23 amino acids, Applicants respectfully traverse the rejection appearing at paragraph 12 of the Official Action. Withdrawal of the rejection is respectfully requested and is believed to be fully warranted.

The amendment to claim 16 is respectfully believed to remove the bases for the rejection under 35 USC 112, second paragraph appearing at paragraph 10 of the Official Action since the allegedly objectionable claim language no longer appears in the claims.

The amendment to claim 16 is also respectfully believed to remove the basis for the rejection under the enablement requirement of 35 USC 112, first paragraph appearing at paragraph 13 of the Official Action. The term which the Examiner considered to be objectionable ("sufficiently similar") has been removed from the claim and the open-ended "comprising" transitional has been replaced with the transitional "consisting essentially of", whereby to limit the scope of the claim to the recited peptides "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention (see MPEP Section 2111.03). Moreover, the number of amino acids has been limited by the closed ("consisting") transitional such that the claim as amended excludes any peptide having fewer than 9 or more than 23 amino acids.

Claim 25 has been canceled whereby to render moot the objections and rejections appearing at paragraphs 7, 8 and 14 of the Official Action.

The amendment to claim 16 is further respectfully believed to remove the basis for the prior art rejection appearing at paragraph 16 of the Official Action. None of the recited sequences in the claim as amended is shown or suggested in the cited Border reference.

The cited Border reference refers to a broad genus of proposed TGF-beta specific inhibitory agents, but does not anticipate the claimed species of fragments consisting of from 9 to

23 amino acids. In this respect, it is settled that to constitute an anticipation of a chemical compound (biological molecule), one of skill in the art must be able to "at once envisage" the specific compound from the genus described in a reference (see MPEP Section 2131.02). One of ordinary skill in the art must be able to draw the structural formula or write the name of each of the compounds included in the generic formula before any of the compounds can be "at once envisaged." Id. One may look to the preferred embodiments to determine which compounds can be anticipated. Id.

In the present case, Border makes reference to a broad genus of "families" of TGF-beta inhibitors (Border at page 4, lines 1-5) and generally refers to "proteins or active fragments thereof'(Border at page 7, lines 25-28), but only discloses with specificity decorine as a molecule with ability to inhibit the activity of TGF-beta. Under these circumstances, where the genus of prospective molecules taught by the reference is huge and the preferred embodiments do not point to the claimed molecules, the reference cannot be said to anticipate the claimed invention. Similarly, under these circumstances, the reference cannot be considered to render obvious the claimed invention. See MPEP Section 2144.08; see, also, *In re Baird*, 29 USPQ 2d 1550,1552 (Fed. Cir. 1994) ("A disclosure of millions of compounds does not render obvious a claim to three compounds, particularly when that disclosure indicates a preference leading away from the claimed compounds."). This is particularly true in the present case where there is nothing in the prior art that would show or suggest selecting an amino acid sequence with 23 or fewer amino acids from the described genus.

In view of the above, it is respectfully submitted that all rejections and objections of record have been overcome and that the application is now in allowable form. An early notice of allowance is earnestly solicited and is believed to be fully warranted.

Respectfully submitted,

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